

-- ABSTRACT OF THE DISCLOSURE

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NK  
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An electronic device comprising at least one heat-generating electronic component and a passive electronic component in association with the heat generating component. The passive component comprises a porous preform of green silicon carbide or polygranular graphite, and a metal filling the porosities of the preform which can be aluminum, an aluminum alloy, magnesium or a magnesium alloy. The preform forms about 50 to 90% by volume of the passive component.--

IN THE SPECIFICATION:

Page 2, line 30, change "16x10<sup>=6</sup>" to --16x10<sup>-6</sup>--.

Page 4, line 21, change "amagnetic" to  
--non-magnetic--.

Page 8, line 12, change "43/6804" to --4376804--.

Page 10, line 9, after "shown" insert --.---.

IN THE CLAIMS:

Please amend the claims as follows:

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1. (Amended) An electronic device comprising:

a) at least one heat-generating electronic component;

and

b) a passive electronic component <sup>supporting</sup> ~~in association with~~  
said at least one heat-generating electronic component, said

[Material for] passive electronic [components] component  
comprising:

a porous [ceramic body] preform comprising particles  
of green silicon carbide or polygranular graphite, and

a metal filling the porosities of said [ceramic body]  
preform by penetration of metal in liquid form followed by  
solidification, said metal selected from the group consisting  
of [and comprising] aluminum, an aluminum alloy, magnesium  
[or] and a magnesium alloy,

said [ceramic body] preform forming about 50 to 90% by  
volume of said [material] passive electronic component,

said [material] passive electronic component being  
formed by an isotropic composite made of two randomly oriented  
interpenetrating networks of a ceramic phase and a metallic  
phase, and having a coefficient of thermal expansion below  
about  $13 \times 10^{-6} \text{ K}^{-1}$  at  $30-400^\circ\text{C}$  and a density below about  $3100 \text{ kg.m}^{-3}$ .

2. (Amended) The [material] device of claim [2] 1,  
[having] wherein said passive electronic component has a  
coefficient of thermal expansion from  $7 \times 10^{-6}$  to  $13 \times 10^{-6} \text{ K}^{-1}$ ,  
thermal conductivity higher than  $150 \text{ W.m}^{-1} \text{ K}^{-1}$  and a Young's  
modulus higher than 120 GPa, and wherein particles of green

silicon carbide comprise from 50 to 75% by volume of said passive electronic component.

3. (~~Amended~~) The [material] device of claim 1, [having] wherein said passive electronic component has a coefficient of expansion from  $4 \times 10^{-6}$  to  $10 \times 10^{-6} .K^{-1}$ , density below 2300 kg.m<sup>3</sup>, thermal conductivity higher than 100 W.m<sup>-1</sup>.K<sup>-1</sup> and a Young's modulus below 50 GPa, and wherein polygranular graphite comprises from 60 to 90% by volume of said passive electronic component.

Claim 4, line 1, change "material" to --device--.

Claim 5, line 1, change "material" to --device--.

Please add the following new claims:

5. The device of claim 1, wherein said passive electronic component is selected from the group consisting of heat sinks, supports, pole pieces, laser diode supports, and encapsulating cases.

6. The device of claim 1, wherein said at least one heat-generating electronic component is an electronic circuit comprising a plurality of components.

7. The device of claim 7, wherein the circuit is in contact with an insulator, and the insulator is in contact with said passive electronic component.